

TYPE DESIGNATIONS AND NEW SYNONYMIES FOR NEARCTIC
SPECIES OF *PHYTOCORIS* FALLEN (HEMIPTERA: MIRIDAE)

THOMAS J. HENRY AND GARY M. STONEDAHL

Systematic Entomology Laboratory, IIBIII,
Agriculture Research Service, USDA, % National Museum of
Natural History, Washington, D.C. 20560 and
Department of Entomology, Oregon State University,
Corvallis, Oregon 97331

Abstract.—Thirty-seven lectotype and two neotype designations are made for Nearctic species of *Phytocoris* (Hemiptera: Miridae) described by O. M. Reuter, P. R. Uhler, and E. P. Van Duzee. One holotype is identified, and eight species are considered as new synonyms. Species are listed alphabetically; and for each, year of publication, original page number, exact label data, type depository, pertinent body measurements, and discovered paralectotypes are given. Comments are provided on distributions, hosts, identification keys, and male genitalia.

Prior to this study, 230 species of the plant bug genus *Phytocoris* were recognized from Canada and the United States. Most of these were described by H. H. Knight, O. M. Reuter, P. R. Uhler, and E. P. Van Duzee. Van Duzee (except for species treated in this paper) and Knight regularly designated holotypes for their species, thus satisfying Article 73(a) and Recommendation 73A of the 1961 *International Code of Zoological Nomenclature*. However, because of the lack of holotype designations and the frequency of mixed syntype series of species described by Reuter and Uhler and some by Van Duzee, the remaining species of *Phytocoris* are often difficult to identify with certainty. We have found a number of specimens bearing labels such as "typus," "lectotype," "allotype," and "paratype," indicating that someone at the respective museums recognized that these specimens belonged to the original type series of the species; these designations, however, as far as we can determine, represent in-house curation and have never been validated through publication. To insure nomenclatorial stability in the North American species of *Phytocoris*, we feel it is important to make proper type designations, or in a few cases select necessary neotypes.

We have located most of the original specimens of Reuter and Van Duzee in the California Academy of Sciences and in several European museums.

The remaining *Phytocoris* types, including most of Uhler's, were discovered in the U.S. National Museum of Natural History. We have not found types for *interspersus* Uhler and *minutulus* Reuter.

In this paper we select 37 lectotypes, identify one holotype, and assign two neotypes for the North American *Phytocoris* described by Reuter, Uhler, and Van Duzee. Eight species names are recognized as new synonyms. When syntypes were located in the U.S. National Collection and also in European collections, we have selected the best specimen as the lectotype and have labeled the remaining syntypes as paralectotypes. If possible, we have chosen males as lectotypes, or if males are in poor condition, a female was selected. We recognize a holotype only when the author stated he had a single specimen; in all other cases, even when we could locate only one specimen, we assumed that there was a series. The lectotypes, neotypes, and holotype are identified with red rectangular labels having the appropriate type printed at the top; paralectotypes are identified with blue rectangular labels.

The list of taxa below is arranged alphabetically by species with year of publication and original page number given after the author. In the same paragraph, exact label data, set in quotes, are given for each primary type, followed by type depository, condition of primary type, measurements of major body structures of primary type, and list of secondary types located. Synonyms are listed in a new paragraph with the same data as for the valid name; species listed without this data (e.g., those described by H. H. Knight) indicate that a holotype was properly designated and accompanied by a description and measurements. A remarks section under each taxon includes such information as notes on synonymy, confused identities, sources of keys, and other pertinent comments. All junior synonyms are listed alphabetically in the text and cross referenced to the valid senior synonym; e.g., *Phytocoris bipunctatus* Van Duzee [See *annulicornis* Reuter].

The following measurements, in millimeters, are given for each primary type: Body length = BL (from apex of tylus to apex of wing membrane); body width = BW (greatest width across hemelytra, usually just above cuneus); head width = HW (width across eyes); vertex width = V (greatest distance between eyes); rostrum length = RL; length of antennal segments = AI, AII, AIII, AIV; pronotal length = PL (mesal length); pronotal width = PW (basal or posterior width).

The following abbreviations are used for institutions serving as type depositories of the *Phytocoris* species: CAS (California Academy of Sciences, San Francisco, California); TMB (Termesztudományi Múzeum, Budapest); LACM (Los Angeles County Museum, Los Angeles, California); MCZ (Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts); NRS (Naturhistoriska Riksmuseet, Stockholm); USNM (United States National Museum of Natural History, Washington, D.C.), and UZMH (Universitetets Zoologiska Museem, Helsinki).

Phytocoris americanus Carvalho

Phytocoris angustulus Reuter, 1909:29 [name preoccupied by *Phytocoris angustulus* Germar and Berendt, 1856 (fossil mirid)]. Type data (Fig. 1).—Lectotype male (here designated): Label 1, "F[or]t. Pendl[e]t[o]n, 10-7, W[es]t V[irginia]"; 2, "O. Heidemann Collector"; 3, "*Phytocoris angustulus* n. sp. [handwritten], O. M. Reuter det."; 4 (here added), "Lectotype: *Phytocoris angustulus* Reuter, by Henry and Stonedahl, 1983" [USNM type No. 100402; condition good, except the antennae and one fore- and one hindleg are missing]. Measurements of lectotype: BL 5.92; BW 1.92; HW 0.92; V 0.32; RL 2.52; antennae missing; PL 0.92; PW 1.60. Paralectotypes: No other syntypes located.

Phytocoris americanus Carvalho, 1959:190 [new name for *Phytocoris angustulus* Reuter].

Remarks. Knight (1923) correctly recognized this species (as *angustulus*), figured male genitalia, and gave eastern hemlock, *Tsuga canadensis* (L.) Carr., as the host. Knight (1941) recorded *americanus* (as *angustulus*) from New York, North Carolina, Nova Scotia, Vermont, and West Virginia; Wheeler and Henry (1977) added Pennsylvania.

Phytocoris angustulus Reuter

[See *americanus* Carvalho]

Phytocoris annulicornis (Reuter)

Compsocerocoris annulicornis Reuter, 1876:70. Type data.—Lectotype male (here designated): Label 1, "Texas"; 2, "Belfrage"; 3, "Paratypus"; 4, "307 82"; 5, "Riksmuseum Stockholm"; 6 (here added), "Lectotype: *Compsocerocoris annulicornis* Reuter, by Henry and Stonedahl, 1983" [NRS; condition good, except most of left wing membrane and the 4th antennal segments are missing]. Measurements of lectotype: BL 4.58; BW ca. 1.28 (wings spread); HW 0.82; V 0.32; RL 2.08; AI 0.96; AII 2.04; AIII ca. 1.40 (slightly curled); AIV missing; PL 0.64; PW 0.72. Paralectotypes: 2 males and 1 female, same data as for lectotype [NRS].

Phytocoris annulicornis: Reuter, 1909:33 (new combination).

Phytocoris bipunctatus Van Duzee, 1910:77. **NEW SYNONYMY.** Type data.—Lectotype male (here designated): Label 1, "7-Oaks, Fla., May 1, '08, Van Duzee"; 2, "Lectotype *bipunctatus*" (in red, handwritten); 3, "EP Van Duzee Collection"; 4 (here added), "Lectotype: *Phytocoris bipunctatus* Van Duzee, by Henry and Stonedahl, 1983" [CAS type No. 1995; condition fair, left antenna, right foreleg, and right hindleg missing; antennal segment III on right side broken, segment IV missing; membrane of right hemelytron chipped; anterolateral margin of left clavus chipped]. Mea-

surements of lectotype: BL 5.08; BW 1.44; HW 0.87; V 0.33; RL 2.05; AI 1.04; AII 2.21; AIII broken or missing; AIV missing; PL 0.72; PW 1.19. Paralectotypes: 1 male and 1 female, same data as for lectotype; 1 male, Sanford, Fla., Apr. 27, '08, Van Duzee; 1 female, St. Petersburg, Fla., 4-28-08, Van Duzee; 1 female, Tampa, Fla., May 2, '08, Van Duzee; 1 female, Ft. Myers, Fla., May 3-5, '08, Van Duzee. All paralectotypes are deposited in the collection of the CAS.

Remarks. *Phytocoris annulicornis* is recorded from Maine, south to Florida, west to California, and south to Panama (Carvalho, 1959). We suspect that the far western records (California, Colorado, and New Mexico) and the far southern records (Guatemala and Panama) are in error. Although Carvalho (1959) indicated that Knight (p. 717) in Blatchley (1926) synonymized *bipunctatus* under *annulicornis*, Blatchley did not agree with this opinion, noting that neither Reuter (1876) nor Distant (1883) mention the prominent pale spots on the corium which are distinctive in *bipunctatus*. Knight (1927b) added to Blatchley's discussion of *annulicornis*, stating that he had examined a co-type of *annulicornis* and that this specimen was the same as *bipunctatus*, but felt the final decision on synonymy should come only after all of Reuter's specimens were examined. We have examined the types of both species and can say, without a doubt, that *bipunctatus* is a junior synonym of *annulicornis*.

Blatchley (1926) redescribed and keyed *annulicornis*. Contrary to his key, *annulicornis* (couplet bb) has two white spots at the apex of the corium. His key should be modified accordingly.

Phytocoris antennalis Reuter

Phytocoris antennalis Reuter, 1909:32. Type data.—Lectotype male (here designated): Label 1, "Washington, D. C., 24-IX-04"; 2, "O. Heidemann Collector"; 3, "*Phytocoris antennalis* n. sp. [handwritten] O.M. Reuter det."; 4, "Mus. Zool. H:fors Spec. typ. No. 9685 *Phytocoris antennalis* O.M. Reut."; 5 (here added), "Lectotype: *Phytocoris antennalis* Reuter, by Henry and Stonedahl, 1983" [UZMH; good condition except the 4th antennal segments are missing and the wings are spread (pinned through right anterior region of abdomen). Measurements of lectotype: BL 6.10; BW not measured, wings spread; HW 0.90; V 0.44; RL 2.81; AI 1.60; AII 3.28; AIII 2.16; AIV missing; PL 0.79; PW 1.40. Paralectotypes: 4 females, same locality as for lectotype with dates 15-9, 4-7-1889, 4-7-1901, 19-VIII-1901, [3 females, UZMH; 1 female, USNM].

Remarks. *Phytocoris antennalis* has been redescribed and keyed by Knight (1923) and Blatchley (1926). This is a widespread species that occurs from Massachusetts, south to Florida, and west to Oklahoma (Carvalho, 1959).

Phytocoris barbatus Van Duzee

[See *roseus* (Uhler)]

Phytocoris bakeri Reuter

Phytocoris bakeri Reuter, 1909:28. Type data.—Lectotype male (here designated): Label 1, "Claremont, Cal., Baker"; 2, "1203"; 3, "*Phytocoris bakeri* n. sp. [handwritten] O. M. Reuter det."; 4, "Mus. Zool. H:fors, Spec. typ. No. 9681, *Phytocoris bakeri* O.M. Reut."; 5 (here added), "Lectotype: *Phytocoris bakeri* Reuter, by Henry and Stonedahl, 1983" [UZMH; good condition, except the 4th antennal segments are missing and the hemelytra are spread]. Measurements of lectotype: BL 5.25; BW ca. 1.67 (wings spread); HW 0.90; V 0.36; RL 2.02; AI 1.28; AII 2.08; AIII 1.28; AIV missing; PL 0.76; PW 1.40. Paralectotypes: 7 males and 2 females, same data as for lectotype [5 males and 2 females, CAS; 1 male, UZMH; 2 males, USNM].

Remarks. *Phytocoris bakeri* is known only from California. Knight (1968) included it in his key to the western species of *Phytocoris*.

Phytocoris bipunctatus Van Duzee

[See *annulicornis* (Reuter)]

Phytocoris brevisculus Reuter

Phytocoris brevisculus Reuter, 1876:68. Type data.—Lectotype male (here designated): Label 1, "Texas"; 2, "Paratypus"; 3, "417 82"; 4, "Riksmuseum Stockholm"; 5 (here added), "Lectotype: *Phytocoris brevisculus* Reuter, by Henry and Stonedahl, 1983" [NRS; good condition, except the right hindleg and left antenna are missing, and the specimen is pinned through the right hemelytron]. Measurements of lectotype: BL 4.05; BW 1.57; HW 0.90; V 0.30; RL 1.84; AI 0.59; AII 1.46; AIII 0.90; AIV missing; PL 0.79; PW 1.44. Paralectotypes: Same data as for lectotype [1 male and 2 females, NRS; 1 female, UZMH].

Remarks. *Phytocoris brevisculus* has been keyed and redescribed by Knight (1941). Froeschner (1949) included it in his key to the Missouri species. Wheeler and Henry (1977) described and figured the adult and 5th-instar nymph, studied biology, summarized the literature, and firmly associated this predatory species with *Juniperus* spp. and other conifers, as well as with apple, crabapple, and honeylocust. *Phytocoris brevisculus* is widespread from Pennsylvania, south to Alabama, and west to Colorado and Texas (Carvalho, 1959; Wheeler and Henry, 1977).

Phytocoris canadensis Van Duzee

Phytocoris inops Uhler, 1878:402 [preoccupied by *Phytocoris inops* Uhler, 1877]. Type data.—Lectotype [sex?] (here designated): Label 1, "53"; 2, "83"; 3, "M.C.Z. Type 26446"; 4 (here added) "Lectotype: *Phytocoris inops* Uhler [1878], by Henry and Stonedahl, 1983" [MCZ; condition very poor; pinned through scutellum; all legs and antennae, hemelytra (except for clavi), and abdomen missing]. Measurements of lectotype: HW 1.06; V 0.40; RL 2.76; PL 0.92; PW 1.76.

Phytocoris canadensis Van Duzee, 1920:346 [Kearney, Ontario, July 29, 1911; CAS type No. 2002].

Remarks. *Phytocoris canadensis* was described from a unique male. Knight (1941) redescribed and keyed this species and illustrated male genitalia.

Phytocoris inops Uhler (1878) has remained a mystery since its original description. Uhler (1877, 1878) used the name *Phytocoris inops* in two separate descriptions of new species. It has been assumed that both descriptions referred to the same species (Carvalho, 1959) or that the "eastern" *inops* (1878) was a species of *Neurocolpus* and the "western" *inops* (1877) was a true species of *Phytocoris* (Knight, in Blatchley, 1926:699). We have examined what we believe to be the original material studied by Uhler (1878), and find that the first description (1877) is based on a different species (see *Phytocoris inops* Uhler, 1877, listed in this paper) than the second (1878). Two specimens in the W. T. Harris collection (MCZ) bear the labels "53" just as Uhler (1878) cited. One specimen (also having "N.H." on the "53" label) is in relatively good condition, but is a female and pertinent markings are obscured by body oils. A second specimen (designated as the lectotype above) is badly broken, but distinct markings on the propleura and pronotum have enabled us to identify this specimen as what Van Duzee (1920) later described as *canadensis*. *Phytocoris canadensis*, thus, is a junior synonym of *inops* Uhler (1878), but *inops* (1878) is a junior primary homonym of *inops* Uhler (1877). *Phytocoris canadensis* is the next available name, as we recognize above.

Phytocoris canescens Reuter

Phytocoris canescens Reuter, 1909:30. Type data.—Lectotype male (here designated): Label 1, "Claremont, Cal., Baker"; 2, "*Phytocoris canescens* Reut." (handwritten); 3 (here added), "Lectotype: *Phytocoris canescens* Reuter, by Henry and Stonedahl, 1983" [USNM type No. 100387; good condition, except left 3rd and 4th antennal segments are missing, the right 2nd, 3rd, and 4th segments are curled, and the hemelytra are spread]. Measurements of lectotype: BL 6.42; BW 1.44; HW 0.88; V 0.36; RL 2.29; AI 1.46; AII 2.80; AIII 1.26; AIV ca. 0.84; PL 0.66; PW 1.24.

Paralectotypes: Same data as for lectotype [1 female, USNM; 1 male, LACM; 1 male (abdomen missing), UZMH; 3 males and 1 female, CAS].

Remarks. *Phytocoris canescens*, described and known only from California, can be keyed in Knight (1968).

Phytocoris confluens Reuter

Phytocoris confluens Reuter, 1909:20. Type data (Fig. 5).—Lectotype male (here designated): Label 1, “♂”; 2, “Wash[i]ngt[o]n, D.C., 10-7”; 3, “O. Heidemann Collector”; 4, “Spec. typ.”; 5, “*Phytocoris puella* var. *confluens* n. [handwritten] O. M. Reuter det.”; 6, “Mus. Zool. H:fors. Spec. typ. No. 9663, *Phytocoris puella* var. *confluens* O.M. Reut.”; 7 (here added), “Lectotype: *Phytocoris confluens* Reuter, by Henry and Stonedahl, 1983” [UZMH; condition good, except left front tibia, left 2nd, 3rd, and 4th antennal segments, and right 4th antennal segment are missing, and the hemelytra are spread]. Measurements of lectotype: BL 5.17; BW ca. 1.50; HW 0.84; V 0.24; rostrum broken; AI 1.08; AII 2.88; AIII 1.40; AIV missing; PL 0.72; PW 1.28. Paralectotypes: 3 males, same data as for lectotype with dates June 23-05, 6-7-90, and 4-7-97 [CAS, UZMH, USNM].
Phytocoris confluens: Knight, 1923:650 (as species).

Remarks. Knight (1923, 1941) redescribed *confluens*, provided an identification key, and gave oak, *Quercus* sp., and red or river birch, *Betula nigra* L., as its hosts. Froeschner (1949) included *confluens* in his key to the *Phytocoris* of Missouri. This species is widely distributed in the eastern United States (Carvalho, 1959).

Phytocoris conspersipes Reuter

Phytocoris conspersipes Reuter, 1909:22. Type data.—Lectotype male (here designated): Label 1, “Wash[i]ngt[o]n, D. C., 16-7-97”; 2, “O. Heidemann Collector”; 3, “Mus. Zool. H:fors, Spec. typ. No. 9677, *Phytocoris conspersipes* O.M. Reut.”; 4 (here added), “Lectotype: *Phytocoris conspersipes* Reuter, by Henry and Stonedahl, 1983” [UZMH; fair condition, with right antenna and left 4th antennal segment missing, and the left hindleg glued to point beside specimen]. Measurements of lectotype: BL 4.58; BW 1.83; HW 1.00; V 0.40; RL 1.96; AI 0.64; AII 1.68; AIII 1.00; AIV missing; PL 0.76; PW 1.44. Paralectotypes: Same data as for lectotype with dates 10-9, 7-10, 10-7, 26-7-95, 27-7-95, 5-10-96, 16-7-97, 20-7-97; 1-XI [1 male and 3 females, UZMH; 1 male and 2 females, CAS; 2 females, USNM].

Remarks. Knight (1923) redescribed this pine-inhabiting species, figured male genitalia (1941), and provided keys to separate it from other eastern species of *Phytocoris*.

Phytocoris covilleae Knight

[See *ramosus* Uhler]

Phytocoris cunealis Van Duzee

Phytocoris cunealis Van Duzee, 1914:16. Type data.—Lectotype male (here designated): Label 1, “San Diego Co., Cal., 6-5-13, EP Van Duzee”; 2, “Lectotype *cunealis*” (in red, handwritten); 3, “EP Van Duzee Collection”; 4 (here added), “Lectotype: *Phytocoris cunealis* Van Duzee, by Henry and Stonedahl, 1983” [CAS type No. 2005; good condition; right hindleg glued to point beside specimen]. Measurements of lectotype: BL 6.75; BW 2.29; HW 1.02; V 0.45; RL 3.33; AI 1.71; AII 3.06; AIII 1.67; AIV 1.13; PL 1.03; PW 1.71. Paralectotypes: 10 males and 9 females, same locality data as for lectotype with dates 6 May–5 June 1913 and 13 April–6 June 1914 [CAS; 1 male, USNM].

Remarks. *Phytocoris cunealis* is known only from southern California (Van Duzee, 1914). Knight (1968) figured male genitalia and included this species in his key to the western *Phytocoris*.

Phytocoris eximius Reuter

Phytocoris eximius Reuter, 1876:67. Type data (Fig. 3).—Lectotype male (here designated): Label 1, “Texas”; 2, “Belfrage”; 3, “*eximius*, Typ., Reut.” (handwritten); 4, “Typus” (red label); 5, “310, 82”; 6, “Riksmuseum Stockholm”; 7 (here added), “Lectotype: *Phytocoris eximius* Reuter, by Henry and Stonedahl, 1983” [NRS; good condition, except the right 3rd and 4th antennal segments are missing, and the specimen is pinned through the right hemelytron]. Measurements of lectotype: BL 6.25; BW ca. 1.83 (hemelytra slightly spread); HW 1.00; V 0.28; RL 2.36; AI 1.12; AII 2.72; AIII 1.48; AIV 1.08; PL 0.88; PW 1.64. Paralectotypes: No other syntypes located.

Phytocoris penepectus Knight, 1920:58. **NEW SYNONYMY** [described from East River, Connecticut; USNM type No. 100388].

Phytocoris penepecten: Knight, 1923:640; 1941:199 (unjustified emendation of *penepectus*—see Steyskal, 1973:208).

Remarks. There is a large amount of literature using the name *eximius* (Carvalho, 1959). Most or all of these records, however, are in error. Typical of many early descriptions of *Phytocoris*, Reuter’s description probably was based on a composite of species. *Phytocoris eximius* belongs to group II of Knight’s (1941) treatment of *Phytocoris*. Apparently no one before us examined the above lectotype that clearly belongs to Reuter’s “type” series. Knight (1920) redescribed *eximius* in detail and figured male genitalia, stating that his redescription was based on a specimen returned by Reuter to Hei-

demann at the USNM. We searched the USNM, but could not find the specimen studied by Knight. Knight apparently reconsidered his definition of *eximius*, for later (1941), he recognized *canadensis* Van Duzee for the species he called *eximius* in 1920 (using the same figures and description). Knight did not attempt to further clarify the identity of *eximius* after his reversed decision.

Male genitalia of the "Belfrage" specimen clearly show that *eximius* is the senior synonym of *penepectus* Knight (1920). Most early records of *eximius* are confused and should be disregarded. *Phytocoris eximius* can be recognized using Knight's (1923, 1941) keys and descriptions of *penepectus*. This species is widespread in the eastern U.S. west to Texas (Carvalho, 1959).

Phytocoris fenestratus Reuter

Phytocoris fenestratus Reuter, 1909:24. Type data.—Lectotype female (here designated): Label 1, "Retreat, NC, 1-6"; 2, "O. Heidemann Collector"; 3, "Spec. typ."; 4, "*Phytocoris fenestratus* n. sp. [handwritten] O. M. Reuter det."; 5 (here added), "Lectotype: *Phytocoris fenestratus* Reuter, by Henry and Stonedahl, 1983" [USNM type No. 100389; fair condition, with right middle and hindlegs and left antenna missing]. Measurements of lectotype: BL 7.75; BW 2.33; HW 1.16; V 0.44; RL 3.20; AI 1.20; AII 3.08; AIII 1.64; AIV 0.92; PL 1.04; PW 2.00. Paralectotypes: 2 females, Wash., D.C., dates 16-V-02 and 27-6-95, Heidemann coll. [UZMH]; 1 female, same data as for lectotype [CAS].

Remarks. This pine-inhabiting species, known from Connecticut, Georgia, North Carolina, and Washington, D.C., has been redescribed and keyed by Blatchley (1926). Henry (1979) figured male genitalia and separated *fenestratus* from two closely related species, *discoidalis* Henry (now a junior synonym of *dreisbachi* Knight (Henry, 1982a)) and *intermedius* Henry.

Phytocoris formosus Van Duzee

Phytocoris reuteri Van Duzee, 1914:18 (name preoccupied by *P. reuteri* Saunders, 1875. Type data.—Lectotype male (here designated): Label 1, "San Diego Co., Cal., 7-4-13, EP Van Duzee"; 2, "Lectotype *reuteri*" (in red, handwritten); 3, "EP Van Duzee Collection"; 4 (here added), "Lectotype: *Phytocoris reuteri* Van Duzee, by Henry and Stonedahl, 1983" [CAS type No. 2000; good condition; antennal segment IV on right side missing]. Measurements of lectotype: BL 6.00; BW 1.69; HW 0.92; V 0.30; RL ca. 2.88 (apex obscured by point and glue); AI 1.40; AII 2.57; AIII 1.87; AIV 1.24; PL 0.81; PW 1.35. Paralectotypes: 6 males and 10 females, same locality data as for lectotype with dates 4 July 1913 and 5 August 1913 [14, CAS; 2 USNM].

Phytocoris formosus Van Duzee, 1916:37 (new name for *P. reuteri* Van Duzee).

Remarks. *Phytocoris formosus* is known only from Southern California (Van Duzee, 1914). Knight (1968) recorded *Cordylanthus filifolius* Nutt. (as *Adenostegia filifolia*) as the host and included *formosus* in his key to the western species of *Phytocoris*.

Phytocoris fumatus Reuter

Phytocoris fumatus Reuter, 1909:25. Type data.—Lectotype female (here designated): Label 1, "Wash[i]ngt[o]n, D. C. 20-6"; 2, "Heidemann Collector"; 3, "7"; 4, "Spec. typ."; 5, "*Phytocoris fumatus* n. sp. [handwritten] O. M. Reuter det."; 6 (here added), "Lectotype: *Phytocoris fumatus* Reuter, by Henry and Stonedahl, 1983" [USNM type No. 100391; fair condition, with antennae and legs on left side missing]. Measurements of lectotype: BL 7.58; BW 2.58; HW 1.16; V 0.48; RL 4.83; antennae missing; PL 1.24; PW 2.00. Paralectotypes: No other syntypes located.

Phytocoris subnitidulus Reuter, 1909:26 (synonymized by Knight, 1920:63). Type data.—Lectotype female (here designated): Label 1, "Plummer's [sic] I[island], Md. [date obscured by glue]"; 2, "O. Heidemann Collector"; 3, "*Phytocoris subnitidulus* n. sp. [handwritten] O. M. Reuter det."; 4 (here added), "Lectotype: *Phytocoris subnitidulus* Reuter, by Henry and Stonedahl, 1983" [USNM type No. 100390; good condition, except the 3rd and 4th antennal segments are missing and a pin has been inserted into and removed from the right hemelytron; the left hindleg is glued to the locality label below the specimen]. Measurements of lectotype: BL 7.25; BW ca. 2.50 (hemelytra slightly spread); HW 1.16; V 0.44; RL 4.83; AI 1.92; AII 3.75; AIII and AIV missing; PL 1.12; PW 1.92. Paralectotype: 1 male, Wash., D.C., 10-6, Heidemann [UZMH].

Remarks. This widespread eastern U.S. species (Carvalho, 1959) has been redescribed and keyed by Knight (1923, 1941). Knight (1920, 1941) figured male genitalia and correctly placed *subnitidulus* as a junior synonym of *fumatus*. Froeschner (1949) included *fumatus* in his key to the *Phytocoris* of Missouri. We have chosen the female from Plummer's Island as the lectotype because of the very poor condition of the male from Washington, D.C.

Phytocoris heidemanni Reuter

Phytocoris heidemanni Reuter, 1909:27. Type data (Fig. 4).—Lectotype female (here designated): Label 1, "Pecos, N. M., June 23 (C[oc]k[ere]ll)" (handwritten); 2, "O. Heidemann Collector"; 3, "*Phytocoris heidemanni* n. sp. [handwritten] O. M. Reuter det."; 4 (here added), "Lectotype: *Phy-*

tocoris heidemanni Reuter, by Henry and Stonedahl, 1983" [USNM type No. 100401; good condition, except the right middle and right hindlegs are missing, and a pin has been inserted through and removed from the scutellum; right foreleg glued to point beside specimen]. Measurements of lectotype: BL 7.92; BW 2.75; HW 1.32; V 0.52; RL 3.96; AI 1.84; AII 3.68; AIII 1.68; AIV 1.24; PL 1.16; PW 2.12. Paralectotypes: No other syntypes located.

Remarks. This western pine-inhabiting species, recorded from Arizona, Colorado, New Mexico, and Nevada (Carvalho, 1959), is included in Knight's (1968) key to the western species of *Phytocoris*.

Phytocoris hesperellus Knight

[See *inops* Uhler]

Phytocoris hesperius Knight

[See *inops* Uhler]

Phytocoris infuscatus Reuter

Phytocoris puella var. *infuscatus* Reuter, 1909:20. Type data.—Lectotype male (here designated): Label 1, "♂"; 2, "Wash[i]ngt[o]n, D. C., June 23, 04"; 3, "Heidemann Collector"; 4, "Mus. Zool. H:fors, Spec. typ. No. 9664, *Phyt. puella* var. *infuscata*, O. M. Reuter" (handwritten); 5 (here added), "Lectotype: *Phytocoris infuscatus* Reuter, by Henry and Stonedahl, 1983" [UZMH; good condition, except the right hindleg is missing and specimen is pinned through left clavus]. Measurements of lectotype: BL 5.92; BW 2.17; HW 0.96; V 0.48; RL 2.76; AI 1.08; AII 2.76; AIII 1.40; AIV 1.00; PL 0.84; PW 1.64. Paralectotypes: 1 female, Wash., D.C., 27-7-91, Heidemann [UZMH]; 2 males, 2 females, Rock Creek, 17-6-93 and 24-6-93, Heidemann [1 CAS; 1 UZMH; 2 USNM].

Phytocoris infuscatus: Van Duzee, 1914:16 (as species).

Remarks. *Phytocoris infuscatus*, an eastern U.S. species (Carvalho, 1959), has been redescribed and keyed (Knight, 1923, 1941; Blatchley, 1926). Knight (1923, 1941) figured male genitalia. Froeschner (1949) included *infuscatus* in his key to the species of *Phytocoris* from Missouri.

Phytocoris inops Uhler

Phytocoris inops Uhler, 1877:413. Type data.—Lectotype female (here designated): Label 1, "Clear Cr[ee]k. Canon" (handwritten); 2, "PR Uhler Collection"; 3 (here added), "Lectotype: *Phytocoris inops* Uhler [1877], by Henry and Stonedahl, 1983" [USNM type No. 100392; condition fair;

left 3rd and 4th and right 4th antennal segments and middle left and both hindlegs missing, and specimen is pinned between hemelytra just below apex of scutellum]. Measurements of lectotype: BL 7.58; BW ca. 2.50; HW 1.05; V 0.48; RL 3.28; AI 1.80; AII 3.48; AIII 1.68; AIV missing; PL 1.00; PW 1.84. Paralectotypes: No other syntypes located.

Phytocoris vittatus Reuter, 1909:28. **NEW SYNONYMY.** Type data.—Lectotype female (here designated): Label 1, “Lake Placid, NY, 8-12-04”; 2, “Van Duzee Collector”; 3, “*Phytocoris vittatus* n. sp. [handwritten] O. M. Reuter det.”; 4 (here added), “Lectotype: *Phytocoris vittatus* Reuter, by Henry and Stonedahl, 1983” [USNM type No. 100395; good condition, except the right middle leg, left antenna, and right 4th antennal segment are missing; the left hindleg is detached and glued to point]. Measurements of lectotype: BL 7.42; BW 2.33; HW 1.04; V 0.44; RL 3.24; AI 1.72; AII 3.44; AIII 1.72; AIV missing; PL 0.96; PW 1.76. Paralectotypes: No other syntypes located.

Phytocoris palmeri Reuter, 1909:32. **NEW SYNONYMY.** Type data.—Lectotype male (here designated): Label 1, “Quinze L[a]k[e], P[rovince]. Q[uebec]., 8-14-07, W.J. Palmer”; 2, “Holotype *palmeri*” (handwritten); 3, “E. P. Van Duzee Collection”; 4 (here added), “Lectotype: *Phytocoris palmeri* Reuter, by Henry and Stonedahl, 1983” [CAS type No. 1994; poor condition, with right 2nd, 3rd, and 4th antennal segments missing, the right hemelytron broken on the basal ½ of corium, and the wing membrane folded downward]. Measurements of lectotype: BL ca. 6.83 (head turned up and wing membrane folded down); BW 1.08; HW 1.05; V 0.36; RL ca. 3.00 (slightly bent); AI 1.40; AII 3.08; AIII 1.52; AIV 1.20; PL 0.92; PW 1.76. Paralectotypes: 1 female, Quinze Lake, PQ, 8-14-07 [USNM].

Phytocoris hesperius Knight, 1928:44. **NEW SYNONYMY** [described from Stonewall, Las Animas County, Colorado; USNM type No. 100393].

Phytocoris hesperellus Knight, 1968:232. **NEW SYNONYMY** [described from Salt Lake City, Salt Lake County, Utah; USNM type No. 100394].

Remarks. *Phytocoris inops*, like *eximius* Reuter, has been an enigma to mirid workers since its original description. Uhler (1877) probably had a composite of species when he considered the range of *inops* to be Colorado, Maryland, Massachusetts, New Jersey, Rhode Island, and “lower Canada.” His remarks that this species resembled Say’s species *Phytocoris nubilus* (now in the genus *Neurocolpus*), that it could be confused in the field with the genus *Psocus* (Psocidae), and that some specimens in the “south” had lead-colored or bluish markings at the apex of the corium further confused the identity of *inops*. Additionally, Uhler (1878) published a second description of *inops* as a new species based on another species of *Phytocoris* (See *Phytocoris canadensis* listed in this paper).

Only one of Uhler's (1877) localities, "Beaver Brook Gulch, next to Clear Creek Canon," can be associated with the species *inops*. We have found a single female in with undetermined material at the USNM that bears the single label "Clear Cr. Canon." This specimen exactly fits Uhler's (1877) description, making us certain that this specimen belongs to his syntype series.

Because of past confusion, early distribution records of *inops* cannot be trusted. Based on the above synonyms, its distribution can be confirmed for Arizona, Colorado, Nevada, New Mexico, New York, Oregon, Wyoming, and Quebec. Knight (1923) redescribed (as *palmeri*) and keyed (1923, 1941) (as *palmeri* and *vittatus*, respectively) *inops*.

Phytocoris interspersus Uhler

Phytocoris interspersus Uhler, 1895:32. Type data.—Neotype male (here designated): Label 1, "F[or]t. Garland, Colo., Ute Creek Ranch, Aug. 11, 1925, H. H. Knight"; 2, "H. H. Knight Collection"; 3 (here added), "Neotype: *Phytocoris interspersus* Uhler, by Henry and Stonedahl, 1983" [USNM type No. 100396; excellent condition]. Measurements of neotype: BL 6.92; BW 2.25; HW 1.04; V 0.28; RL 2.48; AI 1.12; AII 2.64; AIII 1.48; AIV 1.16; PL 0.88; PW 1.60.

Remarks. We could not find the original female described from "Cheyenne Canon, Colorado Springs, July (Tucker)"; therefore, we have designated the above specimen from the same general type locality as the neotype to represent this species. This specimen agrees with Uhler's description and subsequently identified material of the species.

Knight (1968) recorded *Phytocoris interspersus* from Arizona, California, Colorado, Idaho, New Mexico, Utah, and British Columbia, and included it in his key to the western species of *Phytocoris*.

Phytocoris jucundus Van Duzee

Phytocoris jucundus Van Duzee, 1914:17. Type data.—Lectotype male (here designated): Label 1, "San Diego Co., Cal., 10-19-13, EP Van Duzee"; 2, "Lectotype *jucundus*" (in red, handwritten); 3, "EP Van Duzee Collection"; 4 (here added), "Lectotype: *Phytocoris jucundus* Van Duzee, by Henry and Stonedahl, 1983" [CAS type No. 1998; fair condition; left foreleg and hindleg missing; antennal segments II–IV on right side missing; hemelytra slightly spread]. Measurements of lectotype: BL 6.59; BW ca. 2.34; HW 1.09; V 0.34; RL ca. 2.41; AI 1.31; AII 2.95; AIII 1.48; AIV 0.97; PL 0.95; PW 1.64. Paralectotypes: 8 females, same label data as for lectotype [7, CAS; 1, USNM].

Remarks. *Phytocoris jucundus* is known from California, Idaho, Oregon, and Washington where it occurs commonly on *Pinus* spp. Knight (1968) included it in his key to the western species of *Phytocoris*.

Phytocoris laevis (Uhler)

Callodemus laevis Uhler, 1895:33. Type data.—Lectotype male (here designated): Label 1, "Albuq[uerque], N. M., 9-19-88 [handwritten, printing unclear for year]"; 2, "PR Uhler Collection"; 3, "*Callodemus laevis* Uhler, N. M., Osborn" (handwritten); 4, "*Callodemus laevis*, N. M., det. Uhler" (handwritten); 5 (here added), "Lectotype: *Callodemus laevis* Uhler, by Henry and Stonedahl, 1983" [USNM type No. 100397; condition poor, specimen glued to card, abdomen partially eaten by dermestids, and many appendages broken but glued to card]. Measurements of lectotype: BL 9.00; BW 2.17; HW 1.12; V 0.36; RL ca. 2.48 (obscured under body); AI 1.76; AII 3.04; AIII and AIV missing; PL 1.12; PW 2.04. Paralectotypes: 1 female, Colorado [USNM].

Phytocoris laevis: Reuter, 1909:14 (new combination).

Remarks. *Phytocoris laevis* is known from Arizona and New Mexico, north to Alberta, Canada (Knight, 1968). Knight (1968) included *laevis* in his key to the western species of *Phytocoris*.

Phytocoris lasiomerus Reuter

Phytocoris lasiomerus Reuter, 1909:34. Lectotype male (here designated): Label 1, "Long Lake [New York]"; 2, "typus"; 3 (here added), "Lectotype: *Phytocoris lasiomerus* Reuter, by Henry and Stonedahl, 1983" [TMB; good condition, except 3rd and 4th segments on both antennae missing]. Measurements of lectotype: BL 7.67; BW 2.25; HW 1.04; V 0.44; RL 3.40; AI 1.68; AII 3.32; AIII and IV missing. Paralectotypes: 1 female, Cold River [New York]; 1 male, Huckleberry [New York] (both TMB).

Remarks. *Phytocoris lasiomerus* is known from Quebec south to Massachusetts and New York, west to Colorado, Washington, and Wyoming (Knight, 1941). Knight (1923) correctly redescribed and keyed this northern species.

Phytocoris lineatus Reuter

Phytocoris lineatus Reuter, 1909:30. Type data (Fig. 2).—Lectotype male (here designated): Label 1, "Rifle, Oil, 7-25-00"; 2, "Holotype *lineatus*" (in red, handwritten); 3, "EP Van Duzee Collection"; 4 (here added), "Lectotype: *Phytocoris lineatus* Reuter, by Henry and Stonedahl, 1983" [CAS type No. 1993; fair condition, except all of the right legs and antennal

segments III and IV (left) and II, III, IV (right) are missing]. Measurements of lectotype: BL 6.00; BW 1.67; HW 0.92; V 0.44; RL 3.04; AI 1.64; AII 3.28; AIII broken at apex; AIV missing; PL 0.80; PW 1.40. Paralectotypes: No other syntypes located.

Remarks. *Phytocoris lineatus* has not been treated since its original description and is known only from Colorado.

Phytocoris marmoratus (Van Duzee)

[See *vanduzeei* Reuter]

Phytocoris minutulus Reuter

Phytocoris minutulus Reuter, 1909:24. Type data.—Neotype male (here designated): Label 1, "Plummers I[island], 6-7-06, Md."; 2, "D. H. Clemons Collector"; 3, "*Phytocoris minutulus* Reut., Det. H. H. Knight"; 4 (here added), "Neotype: *Phytocoris minutulus* Reuter, by Henry and Stonedahl, 1983" [USNM type No. 100398; excellent condition except the left 4th antennal segment is missing]. Measurements of neotype: BL 4.48; BW 1.60; HW 0.88; V 0.26; RL 2.22; AI 1.04; AII 2.22; AIII 1.44; AIV 0.90; PL 0.62; PW 1.14.

Remarks. *Phytocoris minutulus* was described from a single female taken on Plummers Island, Md., 26 July 1903, by O. Heidemann. We have been unable to locate this specimen which should be in the USNM; therefore, we have chosen the above specimen from the same type locality as the neotype.

This species is recorded from Maryland, Massachusetts, New Hampshire, New York, North Carolina, Pennsylvania, and Virginia (Knight, 1941). Knight (1923) and Blatchley (1926) redescribed and keyed it with other eastern U.S. species of *Phytocoris*.

Phytocoris mundus Reuter

Phytocoris mundus Reuter, 1909:18. Type data.—Lectotype male (here designated): Label 1, "Wash[i]ngt[o]n, D. C., 19-IV-02"; 2, "10"; 3, "O. Heidemann Collector"; 4, "*Phytocoris* sp.² near *breviusculus* Reut." (handwritten); 5, "*Phytocoris mundus* Uhl. [handwritten] O. M. Reuter det."; 6 (here added), "Lectotype: *Phytocoris mundus* Reuter, by Henry and Stonedahl, 1983" [USNM type No. 100399; good condition, except the right middle leg and segments III and IV are missing on both antennae]. Measurements of lectotype: BL 4.83; BW 1.75; HW 0.92; V 0.40; RL 2.00; AI 0.64; AII 1.80; AIII and AIV missing; PL 0.72; PW 1.36. Paralectotypes: 1 female, Wash., D.C. 1-7-97, Heidemann [USNM]; 1 female, Rock Crk., D.C., 6-7-97, Heidemann [CAS]; 1 female, Bladnsbg., Md., 20-7-92, Heidemann [CAS].

Remarks. *Phytocoris mundus*, a common eastern, pine-inhabiting species, has been redescribed and keyed (Knight, 1923, 1941). Knight (1941) figured male genitalia.

Phytocoris nigripubescens Knight

[See *vanduzeei* Reuter]

Phytocoris pallidicornis Reuter

Phytocoris pallidicornis Reuter, 1876:69. Type data.—Holotype female: Label 1, "Wisconsin"; 2, "Kumlien."; 3, "Typus"; 4, "*pallidicornis* Reut." (folded, handwritten); 5, "311, 82"; 6, "Riksmuseum Stockholm"; 7 (here added), "Holotype: *Phytocoris pallidicornis* Reuter, by Henry and Stonedahl, 1983" [NRS; condition poor, with the antennae and all but 3 legs missing, the wing membrane badly folded, and the right clavus forced up because the specimen is pinned through the middle of the body]. Measurements of holotype: BL ca. 6.67 (wing membrane folded under); BW 2.33; HW 1.00; V 0.44; RL 3.24; antennae missing; PL 0.92; PW 1.64. *Phytocoris pallicornis*: Reuter, 1909:33 (misspelling).

Remarks. Reuter (1876) described this species from a unique female (Reuter, 1909). *Phytocoris pallidicornis* is a widespread northern species that occurs over much of northeastern U.S., west to Colorado and British Columbia. It has been redescribed and keyed by Knight (1923, 1941), Blatchley (1926), and Kelton (1980); Kelton also figured male genitalia.

Phytocoris palmeri Reuter

[See *inops* Uhler]

Phytocoris penepectus Knight

[See *eximius* Reuter]

Phytocoris politus Reuter

Phytocoris politus Reuter, 1909:21. Type data.—Lectotype male (here designated): Label 1, "Ormsby Co., Nev., July, Baker"; 2, "Mus. Zool. H: fors, Spec. typ. No. 9672, *Phytocoris politus* O.M. Reut."; 3 (here added), "Lectotype: *Phytocoris politus* Reuter, by Henry and Stonedahl, 1983" [UZMH; poor condition with one segment III and both 4th antennal segments, and all but three legs missing, the hemelytra spread apart, and the apical parts of the wing membrane broken]. Measurements of lectotype: BL 6.17; BW ca. 2.00; HW 1.12; V 0.36; RL ca. 2.28 (broken and imbedded in glue); AI 1.12; AII 2.76; AIII 1.24; AIV missing; PL 0.96; PW 1.80.

Paralectotypes: 3 females, same locality data as for lectotype [1, UZMH; 2, USNM].

Phytocoris rusticus Van Duzee, 1920:348. **NEW SYNONYMY** [described from Mt. St. Helena, Napa County, California; CAS type No. 699].

Remarks. *Phytocoris politus* is known from California, Idaho, Oregon, and Washington. Knight (1968) included it in his key to the western species of *Phytocoris*.

Phytocoris puella Reuter

Phytocoris puella Reuter, 1876:69. Type data.—Lectotype male (here designated): Label 1, "N[ew]. York"; 2, "Belfrage"; 3, "*puella* Reut." (folded, handwritten); 4, "Typus"; 5, "312, 82"; 6, "Riksmuseum Stockholm"; 7 (here added), "Lectotype: *Phytocoris puella* Reuter, by Henry and Stonedahl, 1983" [NRS; condition poor (slightly teneral). The specimen is pinned through the right hemelytron and mounted on a hollow plastic tube that is attached to the label pin; the left 2nd, 3rd, and 4th antennal segments are missing; the hemelytra are folded up; and the base of the abdomen has been eaten by dermestids]. Measurements of lectotype: BL 4.67; BW (not measured; body distorted); HW 0.80; V 0.24; RL 1.96; AI 0.96; AII 2.04; AIII 1.24; AIV 1.16; PL 0.64; PW 1.20. Paralectotypes: No other syntypes located.

Remarks. *Phytocoris puella* is a widespread eastern U.S. species (Carvalho, 1959) found on numerous deciduous trees, including *Carya* and *Quercus* spp. Knight (1923, 1941) and Blatchley (1926) redescribed and keyed this species. Froeschner (1949) included *puella* in his key to the *Phytocoris* of Missouri.

Phytocoris ramosus Uhler

Phytocoris ramosus Uhler, 1894:252. Type data.—Lectotype female (here designated): Label 1, "S[an]. Berna[r]dino Co., Cal."; 2, "Uhler Type"; 3, "♀"; 4, "Lectotype *ramosus*" (in red, handwritten); 5, "*Phytocoris ramosus* Uhl." (handwritten); 6 (here added), "Lectotype: *Phytocoris ramosus* Uhler, by Henry and Stonedahl, 1983" [CAS type No. 555; poor condition, with right middle and forelegs, left middle and hindlegs, and antennae missing; wing membrane curled]. Measurements of lectotype: BL 5.56; BW 2.16; HW 1.01; V 0.40; RL ca. 2.07; antennae missing; PL 1.01; PW 1.87. Paralectotypes: 2 females, same data as for lectotype except with additional CAS type identification label [CAS].

Phytocoris covilleae Knight, 1925:54 (synonymized by Carvalho, 1959:214).

Remarks. Knight (1968) recorded this species from Arizona, California,

Nevada, and Utah, and included it in his key to the western species of *Phytocoris*.

Phytocoris reuteri Van Duzee

[See *formosus* Van Duzee]

Phytocoris roseus (Uhler)

Compsocerochoris roseus Uhler, 1894:253. Type data.—Lectotype male (here designated): Label 1, “San Borja, Lower Cal., Mex., Chas D. Haines, May 1889”; 2, “778”; 3, “♂”; 4, “Lectotype *roseus*” (in red, handwritten); 5 (here added), “Lectotype: *Compsocerochoris roseus* Uhler, by Henry and Stonedahl, 1983” [CAS type No. 557; poor condition with hindlegs, left antenna, and 3rd and 4th segments of right antenna missing; pinned through scutellum and hemelytra slightly spread; abdomen partially eaten by dermestids but leaving genital segment intact]. Measurements of lectotype: BL 7.34; BW ca. 2.20; HW 1.07; V 0.34; RL 3.19; AI 1.67; AII 3.11; AIII and AIV missing; PL 0.95; PW 1.76. Paralectotypes: 2 females, Los Angeles, no other data [USNM].

Phytocoris roseus: Reuter, 1909:27 (new combination).

Phytocoris barbatus Van Duzee, 1920:353 (synonymized by Carvalho, 1959: 214).

Remarks. *Phytocoris roseus* is known only from southern California and Mexico (Carvalho, 1959). Knight (1968) included it in his key to the western species of *Phytocoris*.

Phytocoris rufoscriptus Van Duzee

Phytocoris rufoscriptus Van Duzee, 1914:15. Type data.—Lectotype male (here designated): Label 1, “San Diego Co., Cal., 6-8-13, EP Van Duzee”; 2, “Lectotype *rufoscriptus*” (in red, handwritten); 3, “EP Van Duzee Collection”; 4 (here added), “Lectotype: *Phytocoris rufoscriptus* Van Duzee, by Henry and Stonedahl, 1983” [CAS type No. 2007; good condition except the left hindleg is missing]. Measurements of lectotype: BL 7.78; BW 2.45; HW 1.04; V 0.44; RL (not measured; tip obscured by point and glue); AI 1.94; AII 3.53; AIII 1.87; AIV 1.26; PL 1.13; PW 1.85. Paralectotypes: 2 males and 1 female, same data as for lectotype except dates 6-6-14 and IV-13-1913 [CAS]; 1 male, same data as for lectotype except 4-13-14 [USNM].

Remarks. *Phytocoris rufoscriptus* is known only from southern California (Van Duzee, 1914). Knight (1968) included it in his key to the western species of *Phytocoris*.

Phytocoris rufus Van Duzee

Phytocoris rufus Van Duzee, 1912:477. Type data.—Lectotype male (here designated): Label 1, "7-Oaks, Fla., May 1, '08, Van Duzee"; 2, "Lectotype *rufus*" (in red, handwritten); 3, "EP Van Duzee Collection"; 4 (here added), "Lectotype: *Phytocoris rufus* Van Duzee, by Henry and Stonedahl, 1983" [CAS type No. 2009; fair condition; the right 3rd and 4th antennal segments are missing; hemelytra spread, outer margins raised]. Measurements of lectotype: BL 4.54; BW ca. 1.62; HW 0.77; V 0.25; RL ca. 1.62, tip obscured by point and glue; AI 0.59; AII 1.62; AIII 0.90; AIV 0.79; PL 0.59; PW 1.17. Paralectotypes: 3 females, same data as for lectotype [2, CAS; 1, USNM].

Remarks. *Phytocoris rufus* is known from Florida (Van Duzee, 1912), Louisiana, and Mississippi (Knight, 1927a). Blatchley (1926) included this species in his key to the eastern species of *Phytocoris*. Henry (1982b) recorded *Hypericum* spp. as the hosts.

Phytocoris rusticus Van Duzee

[See *politus* Reuter]

Phytocoris subnitidulus Reuter

[See *fumatus* Reuter]

Phytocoris tibialis Reuter

Phytocoris tibialis Reuter, 1876:68. Type data.—Lectotype female (here designated): Label 1, "Wisconsin"; 2, "Kumlien"; 3, "Allotypus"; 4, "414 82"; 5, "Riksmuseum Stockholm"; 6 (here added), "Lectotype: *Phytocoris tibialis* Reuter, by Henry and Stonedahl, 1983" [NRS; poor condition with legs and left antenna missing; abdomen somewhat shriveled]. Measurements of lectotype: BL 5.02; BW 1.78; HW 0.82; V 0.32; RL ca. 2.07; AI 0.92; AII 2.03; AIII 1.33; AIV 0.70; PL 0.72; PW 1.40. Paralectotypes: No other syntypes could be recognized with certainty.

Compsocorocoris vilis Distant, 1883:260 [described from San Deronimo, Guatemala and Bugaba, Panama; lectotype from Bugaba designated by Carvalho and Dolling, 1976:809] (synonymized by Reuter, 1909:20.)

Remarks. Two male specimens of this species also were examined from the collection of the NRS. Both of these were collected in New York by Belfrage; one bears Reuter's handwritten determination label reading: "*tibialis*, Typ., Reut." Although these specimens are not included in the original description of *P. tibialis*, their association with the Wisconsin specimen in the NRS and Reuter's det. label on the one specimen suggests that they may

be syntypes. In the original description, "Texas (Belfrage)" is given as the label data for at least part of the syntypes, but it is possible that "Texas" was recorded in error, or less likely, that the specimens were mislabeled (see label data for lectotype of *puella* Reuter).

Phytocoris tibialis is a widespread species occurring from eastern Canada, west to Minnesota, and south to Panama and Venezuela (Carvalho, 1959). Knight (1923, 1941) keyed this species, figured genitalia, and indicated that it could be found among weedy herbaceous plants, including mountain mint *Pycnanthemum* sp., in damp situations.

Phytocoris validus Reuter

Phytocoris validus Reuter, 1909:31. Type data (Fig. 6).—Lectotype male (here designated): Label 1, "F[or]t. Collins, Colo., 7-16-03"; 2, "Van Duzee Collector"; 3, "E P Van Duzee Collection"; 4, "*Phytocoris validus* (Uhl.) [handwritten] O. M. Reuter det."; 5 (here added), "Lectotype: *Phytocoris validus* Reuter, by Henry and Stonedahl, 1983" [CAS type No. 14257; condition fair; the left antenna, left foreleg, and right hindleg are missing; abdomen removed for dissection of genitalia and 9th segment retained in microvial which is attached below specimen on pin]. Measurements of lectotype: BL ca. 6.83 (wing membrane folded under); BW 2.17; HW 0.96; V 0.42; RL 2.80; AI 1.24; AII 2.68; AIII 1.64; AIV 0.88; PL 1.00; PW 1.68. Paralectotypes: No other syntypes could be recognized with certainty.

Remarks. Knight (1968) recorded *validus* from Colorado and North Dakota, and included it in his key to the western species of *Phytocoris*. Kelton (1980) figured male genitalia, recorded Alberta, Manitoba, and Saskatchewan, and keyed it with the *Phytocoris* of the Prairie Provinces.

Phytocoris vanduzeei Reuter

Lygus vividus Uhler, 1894:260. Type data.—Lectotype male (here designated): Label 1, "Comondu"; 2, "Uhler Type"; 3, "318"; 4, "♂"; 5, "Lectotype *vividus*" (in red, handwritten); 6, "*Lygus vividus* Uhler" (handwritten); 7 (here added), "Lectotype: *Lygus vividus* Uhler, by Henry and Stonedahl, 1983" [CAS type No. 561; fair condition, with left hindleg, left antenna, and right 2nd–4th antennal segments missing; wing membrane curled upward]. Measurements of lectotype: BL ca. 5.40; BW 1.75; HW 0.97; V 0.28; RL 1.66; AI 0.54; AII–AIV missing; PL 0.90; PW 1.58. Paralectotypes: No other syntypes located.

Dichrooscytus marmoratus Van Duzee, 1910:78. Type data.—Lectotype male (here designated): Label 1, "Alamogordo, NM, V-7-'02"; 2, "Paratype *marmoratus*" (in orange, handwritten); 3, "EP Van Duzee Collection"; 4 (here added), "Lectotype: *Dichrooscytus marmoratus* Van Duzee, by Hen-

ry and Stonedahl, 1983" [CAS type No. 2015; good condition except left middle leg, left antennal segments II–IV, and right antennal segment IV missing]. Measurements of lectotype: BL 4.86; BW 1.64; HV 0.98; V 0.30; RL (not measured, obscured by point and glue); AI 0.45; AII 1.86; AIII 0.86; AIV missing; PL 0.77; PW 1.44. Paralectotypes: 1 male and 1 female [USNM]; 8 males and 5 females [CAS]; all having same locality data as for lectotype with dates ranging from 8 March to 10 May 1902.

Phytocoris vanduzeei Reuter, 1912:30 [new name for *Dichrooscytus marmoratus* Van Duzee (combination *Phytocoris marmoratus* preoccupied by Palearctic species of Douglas and Scott, 1869)]; Knight, 1917:640 (synonymy of *P. vanduzeei* with secondary junior homonym *Phytocoris vividus* (Uhler)).

Phytocoris vividus: Knight, 1917: 640 (new combination) (preoccupied by *Lygaeus vividus* Fabricius, 1803).

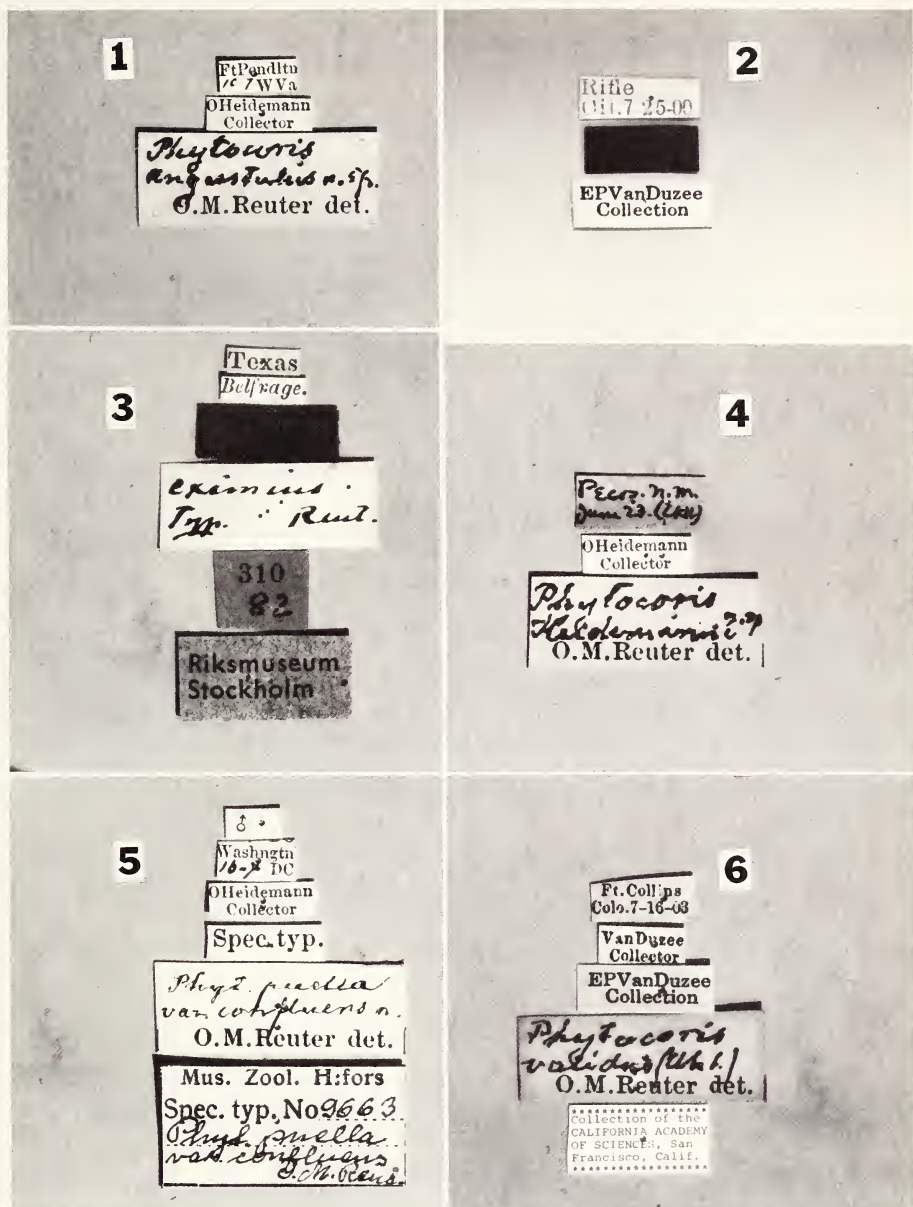
Phytocoris nigripubescens Knight, 1925:55. **NEW SYNONYMY** [described from Tucson, Pima County, Arizona; USNM type No. 100400].

Remarks. Reuter (1912) first recognized that *Dichrooscytus marmoratus* Van Duzee belonged in the genus *Phytocoris* and that it was preoccupied by the Palearctic species *Phytocoris marmoratus* Douglas and Scott. He renamed Van Duzee's species *vanduzeei*. Knight (1917) considered *vanduzeei* a junior synonym of *Lygaeus vividus* Uhler, but later (1968), in treating the western species of *Phytocoris* he apparently overlooked his earlier decision and again recognized both *vividus* and *vanduzeei*. We agree with Knight's earlier work that *Dichrooscytus marmoratus* is a junior synonym of *Lygaeus vividus*. This situation should allow for the recognition of *Phytocoris vividus* (Uhler) as the acceptable name; however, *Phytocoris vividus* is a secondary junior homonym of *Lygaeus vividus* Fabricius. *Phytocoris vanduzeei* is the next available name, as we recognize above.

Phytocoris vanduzeei is known from Arizona, California, New Mexico, and Nevada (Knight, 1968).

Phytocoris vigena (Uhler)

Calocoris vigena Uhler, 1894:255. Type data.—Lectotype male (here designated): Label 1, "San Jose del Cabo"; 2, "Uhler Type"; 3, "♂"; 4, "Lectotype *vigena*" (in red, handwritten); 5, "*Calocoris vigena* Uhl., San Jose del Cabo" (handwritten); 6 (here added), "Lectotype: *Calocoris vigena* Uhler, by Henry and Stonedahl, 1983" [CAS type No. 558; poor condition with legs, right 3rd and 4th antennal segments, and left 4th antennal segment missing; hemelytra spread, membrane tattered; originally pinned through scutellum and later transferred to a point]. Measurements of lectotype: BL ca. 6.59; BW (not measured; hemelytra spread); HW 1.00; V



Figs. 1-6. Labels for lectotypes of *Phytocoris* species described by Reuter. 1. *angustulus*. 2. *lineatus* (dark-red 2nd label reads "Holotype *lineatus*." 3. *eximius* (dark-red 3rd label reads "Typus"). 4. *heidemannii*. 5. *confluens*. 6. *validus* (last collection label not in type data; added by authors).

0.39; RL 2.90; AI 1.57; AII 3.11; AIII broken or missing; AIV missing; PL 1.08; PW 2.00. Paralectotypes: 1 male, same locality data as for lectotype [CAS].

Phytocoris vigens: Carvalho, 1959:221 (new combination).

Remarks. *Phytocoris vigens* is known only from Baja California, Mexico (Uhler, 1894).

Phytocoris vilis (Distant)

[See *tibialis* Reuter]

Phytocoris vittatus Reuter

[See *inops* Uhler]

Phytocoris vividus (Uhler)

[See *vanduzeei* Reuter]

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